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THE EFFECTS OF THE FINANCIAL CRISIS ON THE MILITARY IN THAILAND

by

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THE EFFECTS OF THE FINANCIAL CRISIS ON THE MILITARY IN THAILAND

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This thesis investigates the effects of the Thai financial crisis on the Thai military from the fiscal budget allocation aspect. The thesis explores the changes in the expenditure reduction pattern during four years of the recent financial crisis in Thailand. The thesis finds that the budget allocation in Thailand follows the historical expenditure reduction pattern found by Norman L. Hicks. The defense budget bears a high burden from the fiscal budget reduction during the financial crisis as found in the Hicks' study. This budget allocation pattern creates short-term and long-term effects on the Thai military. The short-term effects mainly come from the real term reduction in the defense budget, while the long-term effects draw from the decline in defense budget as a proportion of the GNP and the central government budget, in addition to the decline in the GNP. These effects deteriorate the capability, readiness, and the modernization process of the Thai armed forces. The thesis concludes that the effects of the Thai financial crisis tend to cause the Thai armed forces to restructure their organizations.

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I. INTRODUCTION

A. BACKGROUND

After a generation of the intensive development in the late 1980s to the early 1990s, Thailand appeared on the top rank of the newly industrialized countries. Thailand retained one of the highest growth rate countries in the world from 1985 to 1994 (8.2 percent annualized GDP).[1] Thai economy mainly depended on exports of manufactures (high-technology goods) and the development in the service sectors. On the other hand, most of Thailand's imports had been for capital equipment and raw materials. The imports for consumer goods were beginning to rise in the beginning of the 1990s. In general, country benefited from rising investment from abroad while Thailand's 35 percent domestic savings rate was a key source of capital for the economy.[2]

The Thai economy started to slow down in 1996 as the growth rate fell from 8.7 percent in 1995 to 6.4 percent in 1996. This slowdown raised the questions about whether the country could continue to grow by counting on the easy gains of the past. Thai traditional labor-intensive industries began to face on the high competition from neighboring countries such as Vietnam and China. In addition, the serious financial infrastructure problems such as the over investment in the property sector brought many financial firms to the brink of insolvency. The frauds in the financial institutions and political turmoil pushed the Stock Exchange of Thailand (SET) index down from 1415 in

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[1] U.S. Department of Commerce- National Trade Data Bank, *Thailand: Economic Trends and Outlook*, 1998, p. 1.

[2] World Fact Book 1997, *Thailand: Economy*, Available [Online]: <http://www.odci.gov/cia/publications/factbook/country-frame.html> [27 Dec.1998].

February 1996 to around 800 by the end of the year. Over forty percent of stock index decreased. It was set as the worst performance in Asia in that year.[3]

For the Thai people, the illusions of prosperity from the high economic growth in the early of the 1990s still covered in their minds. Thai businesses still enjoyed the large amount of foreign loans in the non-foreign-currency generated investments such as the big project of infrastructure and real estate, while the current account deficit began to wide considerably. In July 1997, the bubble economy burst -- the collapse of the Thai Baht. The Thai people faced the financial rough time: the economic recession, the devaluation of the baht, the fluctuations of exchange rate and domestic interest rate. Thai government finally asked for the IMF's assistance and worked closely under IMF's recovery plan in order to alleviate this crisis.

Although the news and economic analysis about the financial situation in Thailand were worldwide publicized before and after of the economic burst, a clear economic situation did not show up in both government and private sector. Moreover, Thai people were clouded under the illusions of non-floating baht policy from Prime Minister Chavalit Youngchaiyudh, "we will never devalue the baht".[4] So, when the bath was floated, the severe impacts from the eruption of the financial crisis immediately spread widely and deeply through the whole country. It was clearly that this crisis did not only shock to Thai business sector but also stunned to the government agents.

For the Thai military, in order to maintain its readiness, a planner needs to be able to assess the prospects for funding new and remaining programs. What is the effect on

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[3] U.S. Department of Commerce- National Trade Data Bank, p. 2.
[4] Financial Times, *Timetable: Countdown to crisis*, January 13, 1998, p. 1.

the military from this situation? Moreover, how does the military deal with this situation?

B RESEARCH SCOPE

Today, the financial crisis that originated in Thailand is the global. It crates the large impacts in the world economy and also reimpacts to Thailand. Therefore, it is too difficult to simplify the financial crisis situation and its effects in every aspect. In this research, many aspects of the financial crisis were omitted in order to maintain the ability to focus on the effects of the Thai financial crisis on military in the fiscal budget adjustment's point of view. This thesis will pay attention only on the financial crisis in Thailand from 1995 to 1999, and will examine the related data based on the public information.

C. METHODOLOGY

This research will review the Thai financial crisis and the implementation of Thai governmental recovery plan in order to generate a clear picture of upcoming situation in the fiscal budget stance. Then, this research will examine the fiscal budget adjustment of Thailand during the financial crisis by comparing to the study of expenditure reduction during the debt crisis in the 1970s-80s by Norman L. Hicks in order to draw potential fiscal budget adjustment. Finally, This thesis will draw the conclusion from the upcoming financial situation and the potential proportion of defense budget to the effects of the Thai military.

The methodology used in this thesis is a literature review on economy and policy aspects from archival research, as well as, a literature search of books, magazine article,

Internet articles and other information sources in order to provide the appropriate frame of reference and information. Then, all information will be evaluated in order to analyze the effects of the Thai financial crisis on the military.

D. ORGANIZATION OF THE STUDY

Chapter I is the general introduction, scope, and guideline of the thesis. In Chapter II, the thesis will give the overview of the financial crisis in Thailand, the recovery plan, and its implementation. The conclusion of this chapter will focus on the trend of the fiscal budget policy under the facing financial problems in Thailand. Chapter III presents the study of Norman L. Hicks from Strategic Planning and Review Department of the World Bank in the expenditure reduction in developing countries. The argument that Hicks noticed, in the behavior of the countries' adjustment expenditure during the debt crisis in the 1907s-80s, will be used as reference to compare to Thai fiscal budget adjustment in order to draw the potential fiscal budget adjustment and defense budget adjustment. In the fourth chapter, the thesis will present the analysis of the effects of the financial crisis on the Thai military in short-term and long-term effects. This chapter will start with the introduction of the Thai military, then the conclusion of Chapter II (the fiscal budget adjustment policy) and Chapter III (the potential proportion of defense budget) will be used to draw the effects on the military. Finally, the overall picture of the research from Chapter I to IV will be presented in the last chapter, Chapter V- conclusions.

II. THE FINANCIAL CRISIS IN THAILAND

A. BACKGROUND OF THE THAI FINANCIAL CRISIS

1. The Situation Before the Crisis

In the early of the 1990s, the Thai economy grew at a rapid pace with growth rates ranging from 8 percent to 12 percent per year.[5] The government annual budgets were surplus every year. The government's revenues were fueled by growing economy. Thailand was regarded internationally as a success case; a model for less developed countries to follow.[6] Domestic and international investors had high confidence in Thai economic fundamentals.

During this period, Thai currency, the *baht*, had been pegged to a basket of currencies of the principle trading partners. The baht was tied closely to the U.S. dollar (80 percent weight to U.S. dollar, 12 percent to Japanese Yen, and 8 percent to Deutsche mark) while the domestic interest rates were higher than U.S. interest rates.[7] Furthermore, the liberalization of foreign-currency-account transactions and the introduction of the Bangkok International Banking Facility (BIBF) in 1993 also facilitated the capital inflow. All of these factors raised the net capital inflows from about 8.1 percent of GDP in 1990 to 18 percent of GDP in 1995. [8] These capital inflows expedited the country's ability to grow by allowed the private sector to finance their investment projects at much lower interest rates than domestic interest rates. Moreover, a risk from exchange rate was not seriously determined because the baht was tied closely to the U.S. dollars. For the Thai

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[5] The Bank of Thailand, *Thailand's Macroeconomics Indicators*, Available [Online]: < http://www.bot.co.th > [27 Dec. 1998].

[6] U.S. Department of Commerce-National Trade Data Bank, p. 8.

[7] Ibid., p. 9.

government, the foreign reserves were increasing rapidly from 16.5 billion dollars in 1990 to 46.5 billion dollars in 1995 in order to cover the rapid sky-high short-term debt and add the confidence in the strength of the Thai economy.

2. The Transition Period

While Thailand enjoyed high economic growth in the first half of the 1990's, the large capital inflow led the country's outstanding external debt. The total outstanding external debt rose from 28.8 billion dollars in 1990 (33.8 percent of GPD) to 90.5 billion dollars at the end of 1996 (50.9 percent of GDP).[9] Almost all of the increasing debts were generated by the private sector in the short-term debt (maturity of one year or less). The ratio of short-term debt increased from 35.5 percent in 1990 to 55.6 percent in 1995, and the ratio of short-term debt to foreign reserve rose from 0.6 in 1990 to 1.0 in 1995.

For debt management, in the government sector, the fiscal budget was in surplus every year in the first half of the 1990s. Thai government had an effective management system to control the size and maturity structure of public sector debt. However, in the private sector, the lack of sufficient discipline in debt management was found in many aspects such as loans that greatly exceeded from firm's capital, lack of consideration in risks from exchange rate, too much short-term borrowings to finance long term projects, and the over-investment in the non-generate foreign exchange (such as infrastructure and real estates).

Furthermore, Thai business gradually lost its competitiveness. The strength of U.S. dollar in mid-1990s caused the baht to become over-valued, while Thai inflation rate was consistently higher than the U.S. inflation rate. Thai total export declined by 0.2

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[8] The Bank of Thailand. *Thailand's Macroeconomics Indicators.*

percent compared to increasing over 20 percent per year in prior years. Imports, on the other hand, grew at 2.3 percent. This imbalance in export and import pushed the trade deficit up from 15.0 billion dollars in 1995 to 16.5 billion dollars in 1996.[10] The lost of Thai competitiveness also raised the current account deficit from 13.5 billion dollars in 1995 to 14.7 billion dollars in the following year. The confidence of the international financial market in the Thai economy was degraded by all of these factors.

In 1996-1997, speculators started to attack against the value of baht again and again. The foreign reserves were sharply declined from supporting the value of baht against speculative attacks, while the net capital flows became highly negative. The financial situation in Thailand, finally, went to the critical point after the Bank of Thailand (BOT) used a vast amount of foreign reserves to defend the baht against speculative attacks in November 1996, in February 1997, and in May 1997. The foreign reserves dropped from 33 billion dollars in the beginning of the year to mere 2.5 billion dollars at the end of June 1997.[11] This defense of the Thai currency reduced the foreign reserves lower than the outstanding short-term debt position of the country. Ultimately, on July 2, 1997, the government of Thailand decided to let the baht float in the currency market and asked for IMF recovery package on July 28, 1997.

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[9] Ibid.
[10] U.S. Department of Commerce – National Trade Data Bank, p. 10.

B. THAI ECONOMIC RECOVERY PLAN

1. The Initial Recovery Plan

The economic recovery package came out from the close cooperation between Thai government and IMF. The recovery plan first aimed to speedily stabilize the Thai economy, and then to solve the financial infrastructure problems comprehensively in order to put the Thai economy back to stable growth path. The programs of action were divided into two parts: the immediate and medium-term phase.

First, the immediate phase was designed to deal with the macro-economic stabilization and the financial sector reformation. The macro-economic stabilization policies mainly targeted to improve the fiscal balance, to ensure an appropriate level of surplus by raising revenue and reducing expenditure. On the monetary policy, it concerned with tight monetary and exchange rate policies. These policies were required until situations in the exchange market and capital inflows were stable. Finally, on the financial restructuring, the recovery plans focused on the restoration of pubic confidence on the financial institution and restructure of the financial management. The objectives and recovery actions in the immediate phase were showed in Table 1.

Economic reform	Objectives	Action by Thai government
Macroeconomic management	Budget surplus target - to shift the consolidated public sector deficit into a surplus of 1 percent of GDP in 1997/98, - to support the necessary improvement in the large current account deficit, - to cover the interest costs	- Increasing revenue by raise taxes such as value-added tax from 7 percent to 10 percent. - A cut down in planned government budget of the fiscal year 1998 which is previously set at 923 billion baht to 801 billion baht in October 1997. - Ensuring an adequate

[11] Siamwalla, Ammar, *Can a Developing Democracy Manage its Macroeconomy? : The Case of Thailand*, Thailand Development Research Institute, Available [Online]: <http://www.info.tdri.or.th/ newbook .htm> [26 Dec.1998].

	of financial restructuring.	availability of credit to help foster an economic recovery
Monetary policy	- A temporary tightening of monetary policy to stem exchange rate depreciation - Structure a framework of the new managed float regime	- Expenditure switching through weaker exchange rates in order to also help the current account deficit
Financial sector restructuring	- identification and close of un-viable financial institution, - Intervention to the weakest banks and the recapitalization of the banking system. - Structural reforms to remove features of the economy that had become impediment to growth, such as monopolies, trade barriers.	- Closing 58 financial institutions. - Establish the Financial Sector Restructuring Authority (FRA) as an independent agency authorized to take care of suspended financial institutions. - Establishing the Asset Management Corporation (AMC), an independent agency responsible for purchasing deteriorated assets from nonrecovered financial institutions and managing and selling those assets in the future. - Establishment of a specific timetable for implementing financial sector restructuring, including strategies for the preemptive recapitialization and strengthening of the financial system. - Privatization four banks in which the political authorities had intervened.
	Legal Amendment - to facilitate corporate rehabilitation and debt restructuring - to streamline court process for settlement of debt claims	- Legislative amendment in Bankruptcy Law. - Foreclosure proceedings legislation.

Table 1: The Objectives and Recovery Actions in the Immediate Phase

Second phase, the medium-term phase was designed to improve efficiency and to enhance competitiveness of industry. The action plans involved in increasing efficiency of state enterprises by the privatization to private sector investment and operation as well as improving efficiency of the public sector via civil service reform. Moreover, the action plans also included the industrial restructuring plan in order to enhance the export competitiveness of Thai products in the world market.

The fund that came together with the recovery package was approved by the IMF in a 17.2 billion-dollar stand-by credit loan. This loan was divided into twelve withdrawals. Each withdrawal was made roughly in every three months after approval the evaluations of situation by the IMF Board of Executive Directors.[12] The step by step adjustments of IMF recovery package was done a long with the changing financial situation as indicated in the Letter of Intention (LOI). Nowadays (March 1999), Thai recovery plan was implemented under the sixth LOI.

2. Situation After the Initial Recovery Plan

a. The Downturn Period (LOI #1 - #3, July1997 - May 1998)

The economic recovery package under the cooperation of IMF that started in August 1997 had failed to rebuild investor confidence as initially expected. The capital outflows continued unchecked in the first quarter, as international investors and financial institutions called back loans and sought to limit country and regional exposures. The value of the baht remained decreasing (Figure 1). Moreover, the increasing of political and economic uncertainties in the region such as the chaos in Indonesia and Malaysia

[12] The Ministry of Finance, *The Letter of Intent Number Six*, Available [Online]: < http://www.mof.go.th/loi6/ loi6mainE. htm > [5 Jan. 1999].

also damaged the Thai economy. They led many investors to pull out of the region and propel the baht over 50 to one U.S. dollar in the beginning of 1998.

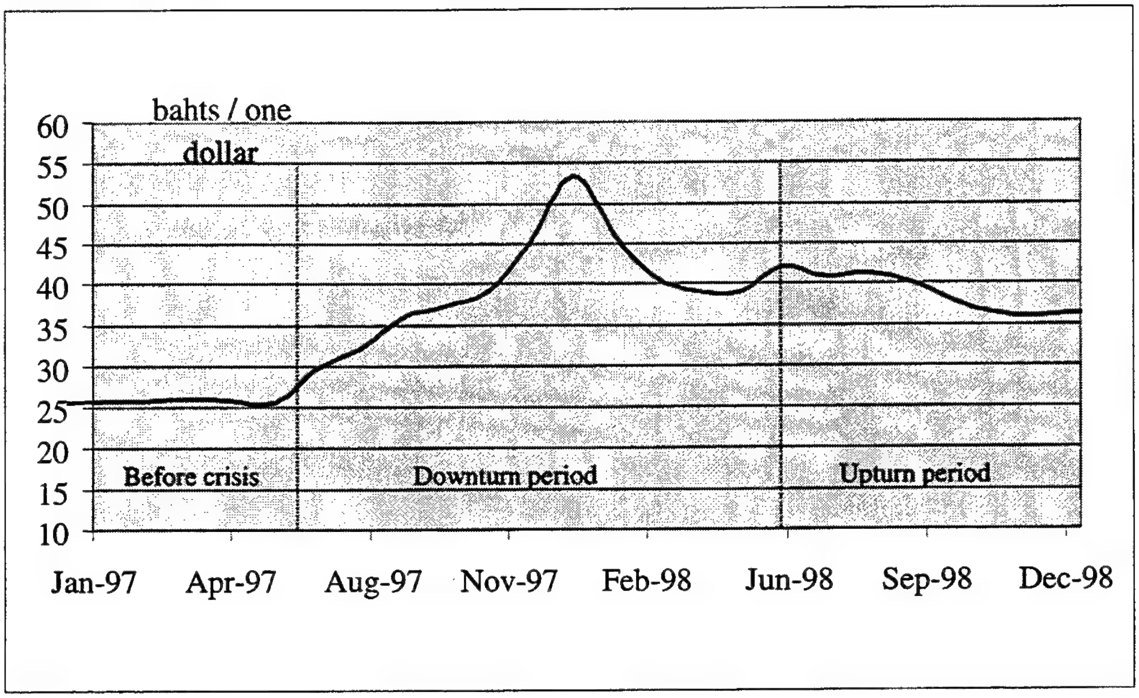

Figure 1: Thailand Exchange Rate as Bahts per one U.S. Dollar (1997-98)

The tight fiscal and monetary policies that planed to restore the confidence and some balances in external accounts ruined on the domestic economy. Short-term interest rates jumped sharply higher. Weak finance companies and commercial banks continued to turn to the central bank's Financial Institutions Development Fund (FIDF) for liquidity support. A credit slowdown was inevitable, given deteriorating asset quality and prospects for the economy overall. Companies with state contracts and concessions also fell into liquidity difficulties as public agencies held back payments in a bid to remain within the government's austerity guidelines.

As a result of the depression from the tight fiscal and monetary policies, the government and the IMF agreed to relax fiscal policies in the third LOI that effected from February through May 1998. Instead of a 1- percent surplus target, the 1998 budget

would instead aim at a deficit of no more than 2 percent of GDP. However, an easing in fiscal policies did little to prevent the slide in domestic economic activity in the beginning. Production and manufacturing indices slid to historical lows. Moreover, imports collapsed nearly 17 percent in the second quarter in 1998, compared with the year before (from 504 to 417 billion bahts), from the wary in job insecurity of the consumers.[13]

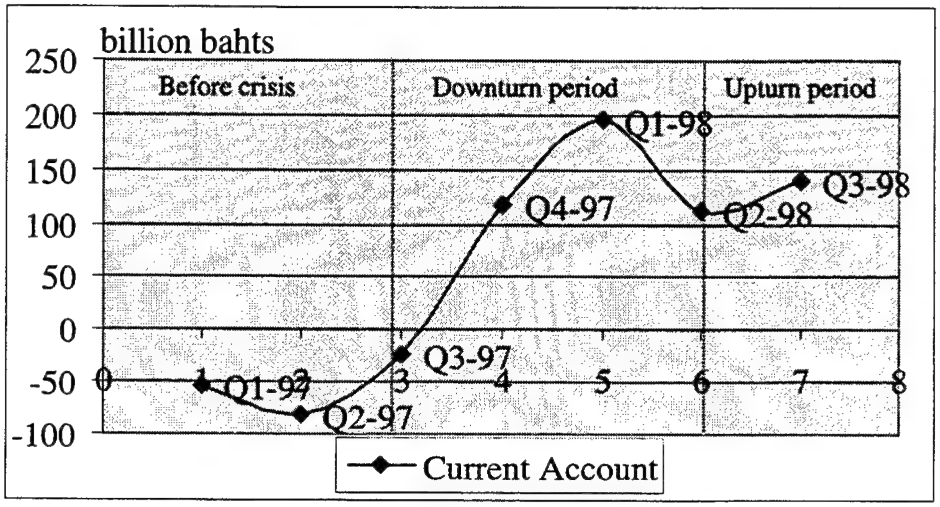

Figure 2: Current Account Q1-1997 to Q3-1998

Nevertheless, during this down turn period (Q3-97 to Q2-98), the current account jumped sharply, with the estimation at 118.1 billion bahts in surplus or about 11 percent of GDP (Figure 2).[14] This surplus mainly came from the import side rather than export side (Figure 3). The import value downed 32 percent, while export value decreased by 3.1 percent. The current inflows helped stabilize the baht in a range of 40-42 bahts to a dollar, while falling demand and depressed world commodities prices helped restrain inflation at rate 8.5 percent.

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[13] Bank of Thailand, Economic Research Department, *Table 42. Balance of Payments,* 16 February 1999, Available [Online]: < http://www.bot.or.th/research/public/bulletin/tab42.htm > [1 March 1999].

[14] Ibid.

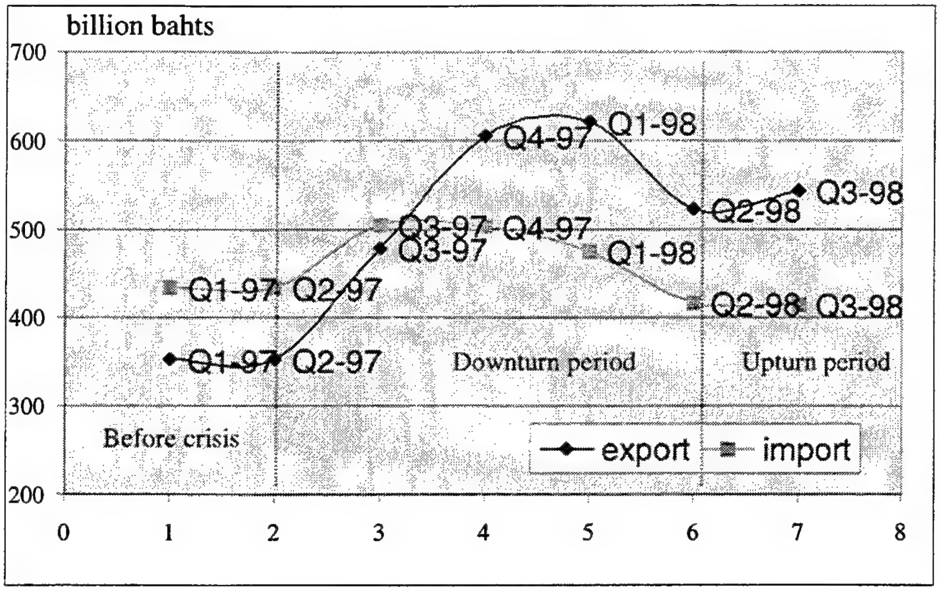

Figure 3: Import and Export Volume

b. The Upturn Period (LOI #4 - #6, August 1998 – present)

The up-turn period began from the stability of the baht at around 40 baht to dollar. The eased monetary and fiscal policies were widely agreed from the IMF and Thai government in the fourth LOI in the late May 1998. The fiscal deficit target was increased to 3 percent of GDP from 2 percent. Money supply growth for the year was increased to 9 percent from the 5.1 percent target set out previously. Market interest rates also began to ease. As depositor confidence returned to the financial system, demand for liquidity from the Financial Institutions Development Fund (FIDF) dropped.

For the foreign reserve situation, although the total sum of external debt did not change much, its composition changed markedly. Short-term private debt decreased by 25 percent (34.3 to 25.9 billion dollars). Reserve / private short-term debt ratio has increased from 0.79 in 1997 to 1.1 in 1998.

The government's financial restructuring programs that have been the cornerstone in the recovery program actually began in the fifth LOI (August to November

1998). The government closed five finance companies and two small banks. A 3000-billion-baht recapitalisation program for the remaining banks and finance companies was issued to strengthen the finance institution situation. Moreover, a number of direct measures have also been taken to revive the financial institution situation such as providing externally-financed credit facilities, especially for small industries, and exporters, removing tax disincentives to corporate debt restructuring; and restructuring the borrowing operations of the Financial Institutions Development Fund (FIDF).

Nowadays, under the sixth LOI, the financial conditions have continued to improve. The strength of market confidence has extended beyond the exchange rate to declining interest rates, a rise in the stock market index. The government intends to continue implementing the expansionary fiscal budget to stimulate the domestic demand and spending. Moreover, this policy will alleviate the redundant labor force problem in the short term.

C. FISCAL BUDGET ADJUSTMENT IN THE FINANCIAL CRISIS

1. Fiscal Budget Adjustment Policy

At the time of the financial crisis eruption, Thai government announced the budget cut under the tight fiscal and monetary policy as a part of the austerity under the IMF-led loan package. Generally, the fiscal budget adjustment policy intended to ensure the quality of public welfare and the development of human resource. The education, health, and essential infrastructure projects were protected.[15]

[15] The Royal Thai Government, *Policy Statement*, 20 November 1997, Available [Online]: < http://www.thaigov.go.th/em-pol.htm > [27 Dec.1998].

Although, later on, the fiscal budget policy was changed to expansionary budget policy, the Cabinet remained approving the FY 99 fiscal budget based on the thriftiness. Thai government announced to decrease a large amount of consumption and less productive spending such as in general administration and defense. Moreover, the fiscal budget policies intended to eliminate the expenditure on the low-priority projects such as unnecessary remuneration, outdoor conferences and temporary employee wage. Finally, the projects with high import contents and foreign currency spending, such as military arms, overseas seminars and conferences, durable goods imports and unnecessary computer hardware, needed to postpone.

2. The Expansionary Budget Allocation

The expansionary budget policy began implementing in May 1998 by increasing the deficit fiscal budget target from 2 percent to 3 percent of GDP. The increasing deficit budget 1 percent of GDP, that equaled 50 billion bahts, was borrowed from treasury reserves. The 50 billion bahts in government spending was broken down into 10 billion for state enterprises and the remaining 40 billion bahts in extra budgetary accounts for the central budget.

State enterprises invested the 10 billion baht portion in various projects such as funds for ongoing infrastructure projects by the Electricity Generating Authority of Thailand and projects by the Petroleum Authority of Thailand.

The extra 40 billion bahts in the central budget were allocated into five parts. First, the 27 billion bahts (54 percent of increasing money in the expansionary policy) was applied to the authorized programs that the budget had been cut in the previous year due to the declining of state revenues. Then, the 4.751 billion bahts covered the

government's outstanding obligations to the Social Welfare Fund. An additional 3.19 billion bahts settled the accumulated losses in 1995-1996 from the Bangkok Mass Transit Authority. Additionally, social welfare, health services, and hospital costs for the civil service received 4.7 billion bahts. Finally, the Government Pension Fund received 0.282 billion bahts in overdue contributions.

For FY 1999, the overall public sector deficit was targeted at about 5 percent of GDP, higher than our previous target by about 2 percent of GDP (the interest costs of financial restructuring are estimated at 3 percent of GDP). Furthermore, the government plans to use foreign financing, about 1 percent of GDP, to support specific spending projects directed toward social safety net and related labor-intensive investment projects. The government will also continue to accelerate the disbursement of budgetary and non-budgetary expenditures.

The outlook for the government budgets for the FY 2000, beginning on October 1, 1999, was expected to be in deficit with the total expenditure around 900 billion bahts. The government still assumes the role to stimulate the economy through government spending.

D. THE CONFRONTING PROBLEMS

The structural weakness of the financial system has been at the heart of the financial crisis. Under the recovery plan, a succession of measures has been introduced to address these weakness and restructure the financial sector, such as the requirement for financial institutions to raise capital in six banks and twelve finance companies and the

measure to deal with the unsuccessful firms in raising new capital by closing 58 financial companies.

However, the combination of the accumulation of non-performing loans (NPLs), the recapitalization of financial, and firms and corporate debt restructuring in the private sector were still being the confronting problems. The NPLs had jumped to around 40 percent of total outstanding credit in the financial institution system.[16] Moreover, as a result of rising non-performing loans, the pace of recapitalisation, strict regulations on loan classification and provisioning, commercial banks continued to pursue a conservative credit extension policy (frozen new loans). At the same time, although the minimum lending rates were cut to the level around 10.5-11.5 percent, the lack of confidence in economic recovery plan still made the investors reluctant to go for the new investments.

These financial restructure problems coped with the deteriorating regional economic environment crated adversary impacts to the domestic investment. The manufacturing production, private consumption, and exports in U.S. Dollar terms dropped at a slower pace.

E. CHAPTER CONCLUSION

The first half of IMF recovery fund was passed, while the rest will end in the next 18 months. Thai government made six out of twelve withdrawals from the IMF financial package, in amount to U.S.$ 12.42 billion of the total U.S.$ 17.2 billion, to alleviate the financial crisis in Thailand. Several measures were launched to tackle the economic woes, and many of them worked so well. The value of baht became more stabilized,

throughout 1998. Foreign reserve resumed a more secured position according to the IMF standard. On the other hand, the roots of the crisis in financial restructure and the NPLs still challenged for the government to overcome in order to bring Thailand backs to the economic growth track.

In the upcoming period, Thai government will probably have to continue its role as a primary economic stimulator. The expansionary monetary and fiscal budget policies will be used to stimulate the national productivity and export in dollar term in state enterprises, as well as in the private sectors. Although, under these policies, the overall budget in the next few years will be increased, the excess budgets tend to allocate more in general government agencies and the infrastructure project in state enterprises, but not in defense budget. The government remained approving the fiscal budget based on the thriftiness. The governmental investment in non-productive, high import contents, and high foreign currency spending areas tend to be continued postpone.

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[16] Bank of Thailand.

III. FISCAL BUDGET ADJUSTMENT IN THE THAI FINANCIAL CRISIS

In this chapter, the fiscal budget adjustment during the financial crisis will be examined in order to find the potential pattern of the fiscal budget allocation of the governments, especially on the defense budget. This paper will use Norman L. Hicks study, *Expenditure Reductions in Developing Countries Revisited,*[17] as a reference in comparison to the fiscal budget adjustment pattern in Thailand.

A. EXPENDITURE REDUCTION IN DEVELOPING COUNTRIES BY NORMAN L. HICKS

1. Hicks' Study

In the study of *Expenditure Reduction in Developing Countries*, Hicks examined the pattern of 24 developing country governments (Table 2) in expenditure reductions under debt burden situation during the 1970s-80s. At that time, many developing countries on hard times from the rising interest costs, higher prices for petroleum imports, and depressed conditions of primary export products.

Country	Expenditure Reduction (percent)	Country	Expenditure Reduction (percent)	Country	Expenditure Reduction (percent)
Argentina	-25.0	Bolivia	-5.0	Paraguay	-11.9
Brazil	-6.1	Chile	-33.2	Tanzania	-25.0
Chile	-7.5	Costa Rica	-33.4	Senegal	-7.0
Dominican Rep.	-16.2	Guyana	-11.9	Togo	-8.4
Haiti	-14.2	Indonesia	-14.0	Thailand	-13.6
Liberia	-45.1	Sri Lanka	-15.2	Turkey	-12.8
Morocco	-12.0	Nicaragua	-10.3	Uruguay	-27.8
Malaysia	-10.4	Venezuela	21.7	Zaire	-53.2

Table 2: Countries Included in Expenditure Reduction Sample, 1970-1984

[17] Hicks, Norman L., *Expenditure Reductions in Developing Countries Revisited*, Journal of International Development: Policy, Economics and International Relations, Vol. 3, No. 1, (New York: Wiley, 1991), pp. 29-37.

All of these circumstances had an adverse impact on the government revenues, while the expended investment programs were financed with foreign debt. However, in some case, the decline in oil prices after 1982 resulted in severe fiscal budget reduction in the oil-exporting countries. The stabilization programs in debt crisis situation mostly associated with debt and interest burden renegotiations. Furthermore, the recovery programs often resulted in reductions of the governmental expenditures in order to reduce the size of budget deficits without raising taxes, or passing the burden to tax payers by higher taxes, reduction in capital and wage expenditures, or do in both ways.

In Hicks' study, he used the elasticity of expenditures in the specific governmental budget sector as the indicator to explain the governmental expenditure adjustment pattern. Where the elasticity of expenditure in the *i*th sector equals the percentage change in expenditures in the *i*th sector (X*i*) divided by the percentage change in total expenditures (X). Governmental sectors that are favored in a period of reduction-

$$ei = Xi\,/\,X$$

(X<0) would have elasticity less than unity; that is, they would be expected to experience reductions of less than average magnitude. However, it did not mean that these sectors were protected from the reduction. On the other hand, a negative elasticity would indicate that the sector managed to expend despite an overall reduction in expenditures. Only if the elasticity is equal to zero, the sector is completely protected.

2. Empirical Evidence

In the empirical study, the governmental expenditures were aggregated into six board sectors: general public sectors, defense, social sectors, productive sectors,

infrastructure, and others. The general public sectors included police, justice and general administrative expenditures. The social sectors included all expenditures on health, education, housing, and other social services. The productive sectors contained expenditures for industrial and agricultural development, while infrastructure sector involved with power, transportation and communication subsections.

Hicks noticed from the empirical evidences that defense and social sectors might have elasticity of less than one (relatively more protected sectors) while productive and infrastructure sectors have elasticity greater than one (relatively less protected sectors).

	Percentage Change	Elasticity
Total Expenditure	-17.2	1.00
General Public	-9.2	0.53
Defense	-6.25	0.38
Social sectors	-11.4	0.66
Productive	-18.7	1.08
Infrastructure	-25.4	1.47
Others	-1.4	0.08

Table 3: Expenditure Reduction and Elasticity by Sector in Sample Countries

For example, the data in Table 2 showed that defense expenditures were highly protected. The elasticity of expenditure in defense sector was only 0.38. The general service with an elasticity of 0.53 is the next most protected while the social sectors with an elasticity of 0.66 are the following most protected. On contrary, infrastructure sector seemed to bear a disproportionate share of the burden, with elasticity of 1.47. The highest elasticity given for infrastructure may reflect the fact that these expenditures had a high proportion of capital expenditures that were more vulnerable to reductions.

3. Hicks' Argument

Hicks argued that the high-debt countries appeared to relatively well protect in defense and the social sectors rather than infrastructure sector. The major burden of the debt fell on the heavily capital-intensive sectors, particularly infrastructure sector. The supported reasons in this pattern lay on the governmental efforts to preserve present welfare and security interests by sacrificing long-term capital investment, and consequently long-term output benefits. On the other hand, the actual expenditures were not reduced in the high-debt countries. The rise in interest costs was greater than the increase in revenues, so that non-interest expenditures were squeezed. Once again capital expenditures and the infrastructure sector seemed to bear the brunt of the reduction. This could have adverse consequences for long-term growth, and implied a passing of adjustment burden on to future generations.

B. FISCAL BUDGET ADJUSTMENT IN THAILAND

1. Thai Fiscal Budget and Expenditure

In general, fiscal budget and governmental expenditure was the structure and levels of financial resources that government allocated via the fiscal budget policy. The fiscal budget indicated the intention of governmental resource allocation while the expenditure showed the actual resource consumption. The governmental expenditure might be more or less than the fiscal budget that approximated in the beginning of the fiscal year. However, the expenditure/fiscal budget ratio also implied the ability of the government to use its resources.

In Thailand, the size of fiscal budget increased around 17 percent annually in the first half of the 1990s. It still raised at double-digit rate until the financial crisis broke up in 1997. When the Thai economy burst, the size of fiscal budget was around 944 billion bahts and the size of expenditure was approximately 763 billion bahts (Table 4).

Year	Fiscal Budget(1) Billion Bahts (1997 price)	Expenditure(2) Billion Bahts (1997 price)	Expenditure /Fiscal Budget Ratio (2)/(1)	Fiscal Budget Increasing Rate	Expenditure Increasing Rate
1988	244,500	211,364	86.8	-	-
1989	286,500	237,438	83.2	17.2	12.3
1990	336,508	280,840	83.5	17.9	18.3
1991	387,500	316,508	81.7	18.8	12.7
1992	460,400	385,781	83.8	21.6	21.9
1993	560,000	462,744	82.6	11.6	19.9
1994	625,000	511,937	81.9	14.4	10.6
1995	715,000	579,734	81.1	17.9	13.2
1996	843,200	670,277	79.5	12.0	15.6
1997	944,000	763,056	80.8	-12.1	13.8
1998	830,000	680,600*	82.0*	-0.6**	-10.8*
1999	825,000	676,500*	82.0*	-0.6**	-0.6*

* Approximate from average projection of expenditure/fiscal budget ratio 82.0percent
** Source from Government Spokesman[18]

Table 4: Fiscal Budget and Expenditure of Thailand in the 1990s

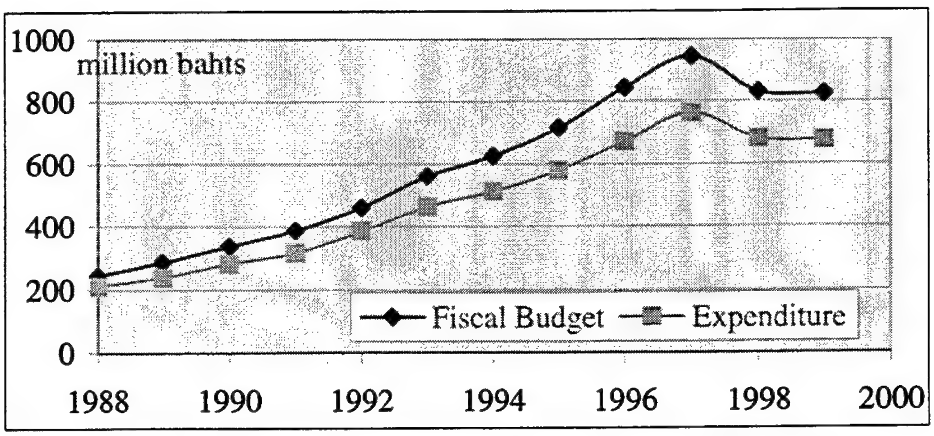

Figure 4: Fiscal Budget and Expenditure 1989-1999

[18] Thailand Government, Government Spokesman, 1999 Fiscal Budget Allocation, Available [Online]: < http://www.spokesman.go.th.> [29 Dec1998].

Although there were some fluctuations in the increasing rate of fiscal budget in each year, the average expenditure / fiscal budget ratios in the 1990s were stable at level around 82percent (Figure 4). Moreover, the ratio of fiscal budget and expenditure in each governmental sector remained roughly in the same level. Therefore, in order to maintain the ability to forecast and eliminate inaccessible expenditure information in FY 1998 and FY 1999, the fiscal budget will be used to analyze the pattern of governmental fiscal budget adjustment in comparison to the Hicks' governmental expenditure reduction pattern.

2. Thailand's Fiscal Budget Adjustment Pattern

In general, Thai government allocates its fiscal budget into 19 sectors according to ministries and key financial functions in the governmental administration (see Appendix A: Thailand Fiscal Budget Allocation). During the economic boom period (FY 1990 - FY 1997), the largest portion of the fiscal budget was allocated to Ministry of Education (MOE) on average around 15.8 percent, while the second largest portion fell on the Ministry of Interior (MOI) in around 15.2 percent of the overall fiscal budget. On the contrary, the smallest fiscal budget proportion took 0.4 percent of overall budget in the Ministry of Commerce. The budget of Ministry of Defense (MOD) was the third largest budget portion of the fiscal budget. It occupied around 13.7 percent during the economic growth period.[19] After the eruption of the financial crisis in 1997, the fiscal budget allocation in 1998 and 1999 were slightly changed. The three biggest fiscal budget portions still remained in the same ministries (MOE, MOI, and MOD) while the smallest budget proportion was in the Ministry of Foreign Affair (average 0.48 percent).

The classification of fiscal budget based on Hicks' categories was exhibited in Table 5 and the proportions of fiscal budget in each category in the 1990s were displayed in Figure 5. It obviously showed that during the high economic growth period, the fiscal budget in all categories also raised along with the economic growth. The general public sectors took the largest proportion in the beginning of the 1990s (1991-1993) with average proportion around 31.5 percent. However, it gradually dropped annually, comparing to, the budget in the social sectors that took the second largest proportion of fiscal budget during economic growth, and it gradually increased in portion up until now. Only in the defense budget that the fiscal budget proportion gradually decreased during economic boom at average rate – 4.5 percent and sharply reduced when economy burst (Figure 5).

Budget and Expenditure Sector	Budget Allocation Organization
Defense	Ministry of Defense
Social sector	Ministry of Labor and Welfare Ministry of Education Ministry of Public Health Ministry of University Affairs
General Public Sector	Office of the Prime Minister Ministry of Justice Ministry of Interior Ministry of Foreign Affairs Ministry of Finance
Infrastructure Sector	Ministry of Transportation and Communications State Enterprises
Productive Sector	Ministry of Agriculture and Cooperatives Ministry of Industry Ministry of Science, Technology and Environment Ministry of Commerce
Others	Others except Office of the Prime Minister Fund and Revolving Capital Central Fund

Table 5: Classification of Fiscal Budget Based on Hicks' Categories

[19]The Bank of Thailand: Economic data bank, Available [Online]: < http://www.mof.go.th/fiscal/Fiscalmain.htm > [28 Dec. 1998].

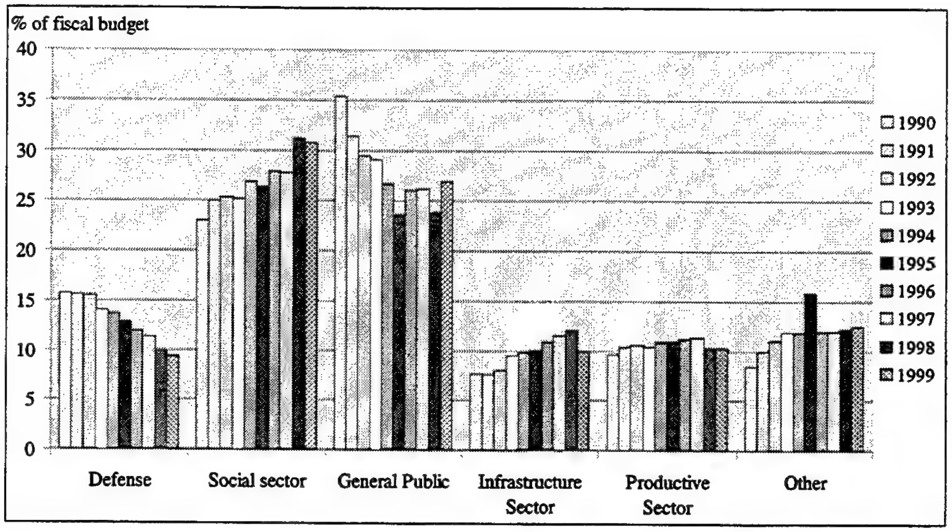

Figure 5: The Proportion of Fiscal Budget Based on Category in the 1990s

3. Elasticity of the Fiscal Budget

The examination of elasticity in Thai fiscal budget category showed that before the financial crisis, the real term budgets in all categories were increased (expect the fluctuation in others sector in 1996). The first two highest favor categories of this increasing fell on the infrastructure sectors (*e* = 1.52 and 1.70) and the general service (*e* = 1.64 and 1.03) while the defense fiscal budget increased in the lowest portion (*e* = 0.5 and 0.34)(Table 6).

Sector	1991	1992	1993	1994	1995	1996	1997	1998	1999
Overall Budget	Incre ase	Incre ase	Incre ase	Incre ase	Incre ase	Incre ase	Incre ase	Decrea se	Decrea se
Defense	0.85	0.80	0.42	0.69	0.47	0.50	0.34	2.53	11.07
Social sector	1.66	1.10	0.93	1.71	0.85	1.38	0.96	-0.08	3.20
General Public	0.14	0.62	0.92	0.22	0.12	1.64	1.03	1.77	-20.43
Infrastructur e Sector	0.91	1.32	2.04	1.32	1.26	1.52	1.70	0.63	30.95
Productive Sector	1.62	1.08	0.89	1.52	1.08	1.08	1.09	1.77	2.00
Others	2.21	1.71	1.47	1.01	3.60	-0.62	1.24	0.75	-0.88

Table 6: The Elasticity of Fiscal Budget in Each Sector

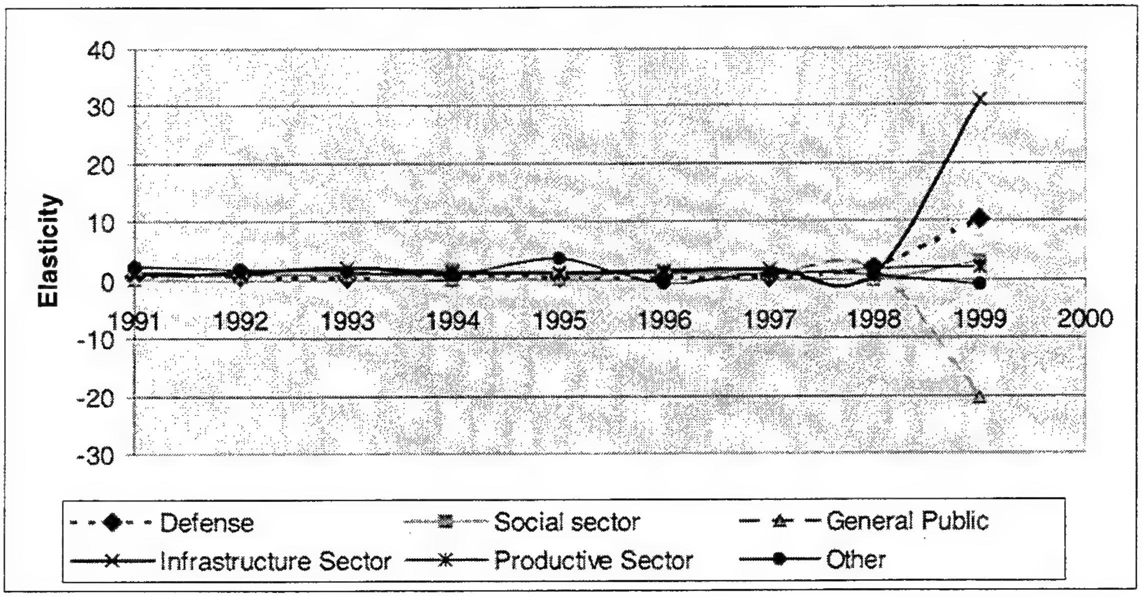

Figure 6: The Elasticity of Fiscal Budget

However, in the beginning of the financial crisis (FY1998), the overall fiscal budget declined 12.1 percent from the previous fiscal year. Clearly, the most burden of this reduction fell on the defense budget (e = 2.53) and followed by the general public sector and productive sector (e = 1.77). The social sector that comprised with budget on health, education, housing and other social services was highly protected (e = -0.08). However, in the second fiscal year under the financial crisis (FY1999), the fiscal budget adjustment policy dramatically changed from the tight monetary policy to the expansionary policy.

Although the excess budgets from the expansionary policy were allocated in the infrastructure sectors, the infrastructure sectors (e = 30.95), that included power, transportation and communications, was changed from the protected sector in 1998 to bear the most of the burden in 1999. Moreover, the defense budget (e = 11.07) also bore the high burden of fiscal budget reduction in second rank. On the other hand, the highest

protected sector was changed into in the general service (e = -20.43) that included police, justice and general administrative budget. Furthermore, the budget in the others sector (e = -0.88), that included central fund, fund and revolving capital, and others, was the second most protected sector.

C. CHAPTER CONCLUSION

In the financial crisis, the fiscal budget adjustment pattern of Thai government has followed the Hicks' argument that in countries experiencing a decline in real government expenditures defense budget and social sector was less vulnerable cut than infrastructure expenditures. The major burden of the debt fell on the heavily capital-intensive sector, particularly in the infrastructure sector while defense budget and social sector were relatively less reduced.

Explicitly, in Thailand's case under the fiscal budget reduction, the infrastructure budget appeared the largest reduction category. Moreover, the defense budget was the second largest reduction category while the social sectors bore the third largest reduction. The most protected category, on the other hand, was the general public sector (police, justice and general administrative) and the others sector (central fund, fund and revolving capital, and others except Office of the PM.) was the second most protected category.

Furthermore, this fiscal budget adjustment pattern trended to follow on the fiscal budget allocation policy that Thai government announced in the recovery plan. Generally, under the expensionary budget policy, the fiscal budget allocation intended to stimulate the domestic productivity and the social welfare, while the governmental investment in non-productive, high import contents, and high foreign currency spending

areas were postponed. Thus, the majority of reduction budgets were loaded in infrastructure and defense sectors.

IV. THE EFFECTS OF THE FINANCIAL CRISIS ON THE THAI MILITARY

A. GENERAL ABOUT THE THAI MILITARY

In the last decade, the security situations in Southeast Asia changed dramatically from the end of the Cold War and the collapse of the Communist insurgency, to the withdrawal of the U.S. military presence from the Philippines, and to the increasing influence of China in South China Sea. The internal threats from the separatists and external threat from unsettled boundary were changed to the dispute in the ownership of natural resource in the sea. The Thai military, which played the major role in internal and external security in the Thai society, is being modified and restructured in order to respond in these changing situations.

The prosperity of the Thai economy, during the first half of the1990s, advocated the modernization of the Thai military. The Thai armed forces expanded their strengths by enhancing their power-projection capabilities in the sea and air power. The Royal Thai Army (RTA), the largest in manpower and the most influence in the Thai armed forces, modernized its strengths though the advanced arms imports, modern education and training as well as the computerized command and control system. The Royal Thai Navy (RTN), the highest growth in military resources over the last decade, has expanded its role from a traditional coastal patrol force to a fleet with blue-water operation. The Navy purchased the region's first light aircraft carrier from Spain, six frigates and a fleet replenishment ship from China. Moreover, a new naval dockyard was built, and five corvettes and a number of patrol aircraft were commissioned. The naval personnel levels

grow from 32,000 in 1980s to some 60,000 in 1995.[20] For the Royal Thai Air Force (RTAF), the fourteen F-16As and four F-16Bs were the biggest project that purchased to reinforce the air power.

Comparison to countries in the Association of Southeast Asian Nations (ASEAN): Indonesia, Malaysia, the Philippines, Singapore, Laos, Myanmar, Cambodia, and Vietnam, in the mid 1990s, the Thai armed forces were the third largest forces in the ASEAN in term of personal, following from Vietnam and Myanmar.[21] In the defense expenditure aspect, in FY 1995 the Thai armed forces had in the largest amount of defense expenditure, following by the Indonesia armed force. Furthermore, in term of the arms import, Thailand was ranked in the second largest arms import country in ASEAN in 1996, after Indonesia's arms imports. Thailand's arms imports size was around 575 million dollars in 1996 (the twenty-first largest in the world). The major supplier country of Thailand's arms imports was the United States (64 percent of arms imports from 1994-1996).[22]

B. DEFENSE BUDGET ALLOCATION

1. General

Under the inaccessible defense budget data circumstance, the defense expenditures during 1970s-1980s which were the actual defense spending--on average around 82 percent of defense budget--will be used as a mirror of the historical data of defense budget allocation to depict the general pattern of defense budget allocation in

[20] SIPRI Yearbook 1995, Stockholm International Peace Research Institute, (Sweden: Oxford University Press), 1995, p. 432.
[21] World Military Expenditure and Arms Transfer 1996, U.S. Arms Control and Disarmament Agency, Available [Online]: < http://www.acda.gov/wmeat96/wmeat96.htm> [11 March 1999].
[22] World Military Expenditure and Arms Transfer 1997, U.S. Arms Control and Disarmament Agency, Available [Online]: < http://www.acda.gov/wmeat97/wmeat97.htm> [11 March 1999].

Thailand before the financial crisis. After that, in the financial crisis in 1997, the defense budget allocation will be used to analyze.

During the 1970s-80s, although the defense expenditure as the percentage of gross national product (GNP) and central government expenditure (CGE) were decreased in the last three decades, the defense expenditure in the real term was increased. Thai defense expenditure as the proportion of GNP slightly decreased from around 3 percent of GNP in the 1970s-80s to around 2.6 percent in the beginning of the 1990s. Furthermore, the defense expenditure as the proportion of CGE also decreased continuously. It declined from around 20 percent of CGE in 1970s-80s to 15 percent in the mid-1990s (Figure 7). However, in the real term, the defense expenditure grew on average 9.6 percent annually. The size of defense expenditure before the eruption of the financial crisis in 1997 was 84,977 million bahts or around 3,399 million dollars in 1997 value.

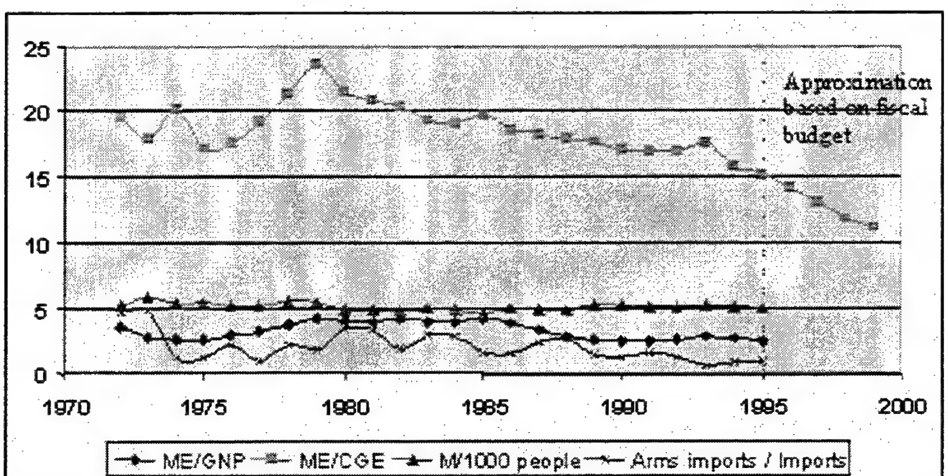

Figure 7: Thai Armed Forces Resources 1972-1995

After the eruption of the financial crisis in 1997, the defense budget was sharply decreased both in real terms and percentage of the central government budget (CGB). The defense budget in real term reduced 20.64 percent from 104,093 in 1997 to 82,612

million baths in 1998. The proportion of defense budget in total fiscal budget also reduced from 11.25 percent in 1997 to 9.95 percent in 1998. Moreover in FY 1999, the defense budget still had a trend of reduction both in real dollar term and as the percentage of the fiscal budget. The defense budget in 1999 was 825,000 million bahts, 26 percent less than the 1997 defense budget, while the portion of defense budget reduced to 9.39 percent of the 1999 fiscal budget (Figure 8).

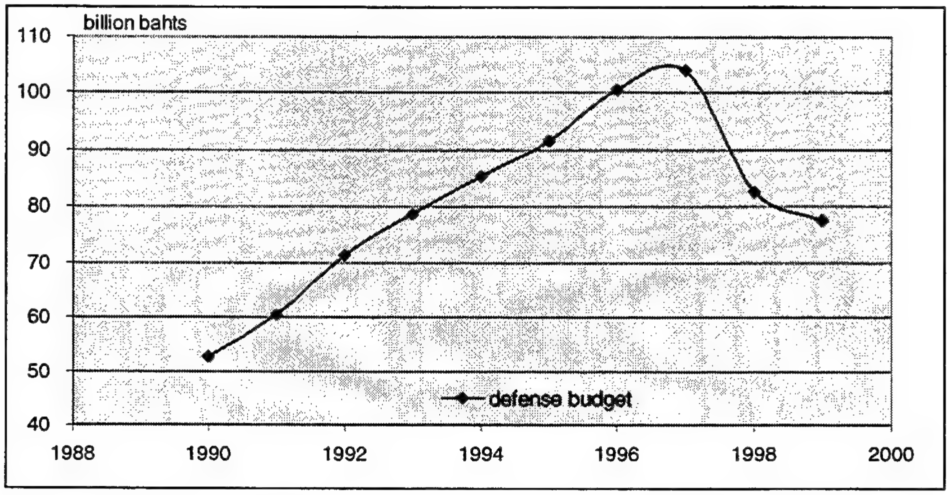

Figure 8: Defense Budget in Real Term

2. Armed Services Category

Thai defense budget mainly allocated to the Ministry of Defense (MOD). It was divided into five departments: the MOD office, the Royal Guard, the Supreme Command, the Army, the Navy, and the Air Force. In general, the Army received the biggest share of defense budget around 46 percent, while the Navy and Air Force got around 20 percent. The others category that included the MOD office, the Royal Guard, and the Supreme Command received around 14 percent of overall defense budget.

Organization	FY1995	FY1996	FY1997	FY1998	FY1999
MOD %	91635 100	100601 100	108570 100	97764 100	77063 100
MOD office %	1801 2.0	1982 2.0	2275 2.1	2982 3.1	3725 4.8
Royal Guard %	89 0.1	102 0.1	181 0.2	201 0.2	126 0.2
Supreme Command %	8939 9.8	9707 9.6	10914 10.1	9482 9.7	7487 9.7
Army %	43197 47.1	47434 47.2	50855 46.8	45338 46.4	35096 45.5
Navy %	18760 20.5	20674 20.6	22109 20.4	19811 20.3	15343 19.9
Air Force %	18849 20.6	20702 20.6	22236 20.5	19950 20.4	15286 19.8

Table 7: Defense Budget Categorized by Armed Services

This armed services budget proportion slightly changed during the financial crisis (Table 7). The Army, Navy, and Air Force tend to get smaller share while the defense budget was allocated more for the MOD office.

3. Operational Task Category

Classified by the operational task, the defense budget was divided into three categories: the general administration budget (included salary, military construction, and office administration), national defense budget (included operational budget, maintenance, and weapons acquisition), and the others (included social service and aids protection fund). When the defense budget was reduced, each category was cut in different proportion (Figure 9). The main protected category was in the general administration budget while the defense budget bore the majority of the burden in this reduction. The proportion of the general administration budget was increased from 49.9

percent in 1995 to 63.0 percent in 1999 while the defense budget was reduced from 45.0 percent in 1995 to 33.2 percent in 1999.

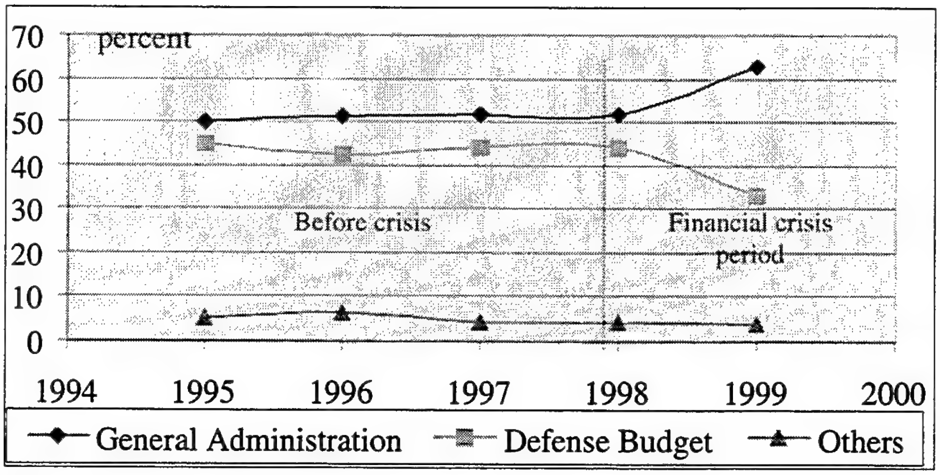

Figure 9: Defense Budget Allocation in Operational Task Category

C. THE EFFECTS OF THE FINANCIAL CRISIS ON MILITARY IN THAILAND

1. The Short-term Effects

The financial crisis crated the direct and severe impacts to the Thai military. In the macro-economic level, it was obviously that the defense budget bore the high burden in the fiscal budget adjustment. The recovery packages under the expansionary policy have little directly relevance to the defense budgets. The defense budget was decreased both in real term and as the percentage of the overall fiscal budget.

In the micro-economic level, the defense budget in a part of the national defense budget category (including the operational budget, maintenance and weapon acquisition budget) got the main burden of budget reduction from the financial crisis. First from the devaluation of the baht, almost all of the arms import and international training and education were frozen in the first year of the crisis. Then, the budget allocation

adjustments, the declining proportion in national defense category dramatically shrank budget in real dollar term. These budget adjustments in the national defense budget category deteriorated the presently military capability and readiness. In addition, these budget reductions will hold back the military modernization process (Table 8).

Armed Services	Proposed Arms Procurement Plan.
National Defense	- The 27-billion-baht military satellite project.
Army	- Planning to buy 50,000 M16-A2 assault rifles costing two billion bahts from the United States. - Replacement M41 and M48 tanks that have been in commission for nearly 30 years cost around five billion bahts. - Replacement WWII artillery and anti-aircraft guns; it costs around two billion bahts. - Rebuild the engines of 100 Bell helicopters that have been in service for 20 years, worth four billion bahts - Acquisition 295 armored vehicles, worth five billion bahts.
Navy	- Proposal 17 billion bahts for two medium-sized submarines. - Planning to buy a fleet of light tanks for the Marines, worth five-billion-bath.
Air Force	- Proposal 12 billion bahts to buy eight F/A-18 jets and computers for its combat aircraft.

Table 8: Proposed Arms Procurement Plan[23]

2. The Long-term Effects

The defense resources allocation has directly effected from the national prosperity as a whole. The national productivity sectors were dampened from the financial crisis and still remained the facing problems for Thai government to solve. This decline in national productivity coped with the historical reduction trend in defense resources as the proportion of the nation resources and the fiscal budget allocation created negative effects

[23] Nanuam, Wassana, *Big budget hike sought for forces: Army will get lion's share of allocation,* Bangkokpost, 1 Jan.1997, Available [Online]: <http://www.bkkpost. samart.co.th> [Dec.1998].

to the defense budget allocation in the long term. Although the defense budgets in the real term may increase, the defense budget as the proportion of GNP and CGB tend to get smaller.

These long-term effects will pressure the Thai armed forces to restructure their organizations. The efficiency in organizational management is demanding under the expansion of budget constraints. The roles and tasks of armed forces need to be adjusted along with the declining proportion in the central government budget. The Thai military, in general, will be modernized into the compact size. The command, control and administration among armed services will be more centralized. The size of the military in personnel (the largest military personnel armed forces in the ASEAN countries) will be deceased in order to reduce the budget burden from manpower. Arms imports tended to decrease while the new weapons will be used as standard arms in all armed services in order to reduce the cost of maintenance and training. The high technology weapons are required in order to reduce the operation cost. Finally, the military cooperation under the cooperative security in the Southeast Asia region needs to develop in order to balance to the reducing military investments and the national security in general.

V. CONCLUSIONS

A. CONCLUSIONS

The eruption of the financial crisis in 1997 created severe and deep damage to the prosperity of Thailand's economy in both the private and governmental sectors. Thai government, with the cooperation of IMF, applied both monetary and fiscal policy to alleviate the economic situations. The initial tight budgetary policy was changed to an expansionary policy to rebuild foreign investor confidence and stimulate the real domestic productivity. However, the problems faced from the non-performing loans in private sector, the financial restructure, and the domestic investment still remained the huge challenges for government to solve.

This research found that Thai fiscal budget adjustment in this financial crisis was following on the Hicks' expenditure reduction pattern. In the high debt countries, the major burden of expenditure reductions fell on the heavily capital-intensive sector, particularly in the infrastructure sector, while the defense and social sector were relatively less reduced. For Thailand's case, the largest burden of budget reductions fell on the infrastructure sectors while the defense sectors were the second.

This reduction pattern became more explicit in the defense budget category whether in tight monetary budget policy or the expansionary budget policies. The defense budget allocation still declined. The increasing in fiscal budget policy from the expansionary fiscal budget policy had little direct effect on the defense budget. In the micro-economic level, the Royal Thai Army, the largest portion of defense budget, bore the largest burden in the budget reduction. Moreover, in the operation category, the

national defense budget category that included operational budget, maintenance, and weapons acquisition was the largest reduction category.

However, Thai defense budgets actually reduced in the proportion of GNP and fiscal budget during the last three decades, but not in real terms. The defense budgets in real terms increased to around 9.6 percent annually. The Thai military used these increasing budgets to modernize its armed forces mainly by arms imports. The defense budgets in real terms started to reduce after the eruption of the financial crisis, and the defense budgets as a proportion of the fiscal budget continued to reduce. This real term and proportion reduction from the financial crisis caused short-term and long-term effects to military.

The short-term effects first came from the immediate impacts of the devaluation of currency on the arms acquisition projects. The arms imports as well as international training and education under the military modernization plan were postponed. Then, the decline of defense budget allocation under the recovery policies also shrank the size of defense budget. These budget reductions mainly went to the national defense budget category that included operation, training, maintenance, and arms acquisition budget. These shot-term effects from the financial crisis deteriorated the capability and readiness of the military as well as hindered the military modernization process.

The long-term effects of the financial crisis on the Thai military depended on the retrieval of the Thai economy in general. The defense budget in real term will increase along with the economic growth. However, the share of defense budget in both GNP and central fiscal budget still has the reduction trend.

Thus, viewed optimistically, the financial crisis was perceived as a booster that forced the Thai military to reshape its structure under the upcoming budget constraint. The roles and tasks of the armed forces need to be reviewed and adjusted along with the decreasing proportion in the central fiscal budget. The Thai armed forces in the future will be shaped in the compact size. The size of the military, in terms of personnel, will be cut in order to reduce the manpower's budget burden, and the arms imports also tend to decrease. The centralized management and administration under the advanced command and control will be applied to reduce the fixed management cost. Furthermore, the military cooperation under the cooperative security in the region needs to develop in order to balance to the reducing military investment and the overall national security.

For the upcoming event, this study suggests that the Thai economy, in general, will recover in the near future. Although, the Thai economy remained a huge debt burden in private and government sectors, the lowest point of Thai economy had already passed during the downturn period. The strong fundamental structure of national productivity coped with the economic liberalization and the expansionary budget policies will stimulate Thai economy back to the economic growth path. This upcoming economy situation will alleviate the defense budget constraint situation. The short-term effects, that directly dampen the capability and readiness of the military, will decline in their impacts from the raising of the defense budget in the real term. However, in the long-term effects, a share of the defense budget tends to get smaller.

Finally, this study shows that the elasticity of budget in the Hicks' expenditure reduction pattern is explicit applicable to the Thailand financial crisis case. It shows the generally predictable pattern of the fiscal budget adjustment in the high debt countries.

Although, Hicks' empirical data mainly came from the debt burden in the government sector, it also adapts in the case that the high debt burden mainly originated from the private sectors, as in this case. This predictability pattern provides the essential cues on how the government allocates its resources (fiscal budget) under the severe budget constraints. Moreover, it also provides a picture of the potential defense budget allocation that will help a planner to adjust the national security policy in general.

B. SUGGESTED FURTHER STUDIES

This research focused on the effects of the financial crisis on the Thai military only in the fiscal budget adjustment point of view. Further studies in the relevant topics can be done by considering other impacts on the Thai military, such as the effects on the role of the armed forces in the political arena, the effects on military aids, and the effects on the national and regional security. Moreover, further study can be done in the field of developing a strategy to deal with budget reduction situations in the future.

APPENDIX A. THAILAND FISCAL BUDGET ALLOCATION

Ministry	1989		1990		1991	
	Amount	%	Amount	%	Amount	%
Total	**285500**	**100**	**336508**	**100**	**387500**	**100**
1.Office of the Prime Minister	2067	0.7	3281	1.0	3807	1.0
2.Ministry of Defense	**44427**	**15.6**	**52752**	**15.7**	**60588**	**15.6**
3.Ministry of Finance	68887	24.1	72563	21.6	61062	15.8
4.Ministry of Foreign Affairs	1252	0.4	1563	0.5	2139	0.6
5.Ministry of Agriculture and Cooperatives	19867	7.0	26977	8.0	31512	8.1
6.Ministry of Transportation & Communications	14348	5.0	18379	5.5	20737	5.4
7.Ministry of Commerce	764	0.3	1007	0.3	1255	0.3
8.Ministry of Interior	27180	9.5	40681	12.1	53496	13.8
9.Ministry of Labor and Welfare	0	0.0	0	0.0	0	0.0
10.Ministry of Justice	865	0.3	1115	0.3	1246	0.3
11.Ministry of Science, Technology and Environment	2015	0.7	2930	0.9	5706	1.5
12.Ministry of Education	40380	14.1	51935	15.4	63513	16.4
13.Ministry of Public Health	11562	4.0	16521	4.9	20993	5.4
14.Ministry of Industry	1364	0.5	1558	0.5	1974	0.5
15.Ministry of University Affairs	6760	2.4	8930	2.7	12326	3.2
16.Others except Office of the Prime Minister	816	0.3	1484	0.4	1542	0.4
17.State Enterprises	5434	1.9	7583	2.3	8804	2.3
18.Fund and Revolving Capital	249	0.1	497	0.1	528	0.1
19.Central Fund	37265	13.1	26752	7.9	36273	9.4

Note: Amount: Millions Bahts, based on 1997

Ministry	1992		1993		1994		1995	
	Amount	%	Amount	%	Amount	%	Amount	%
Total	**460,0000**	**100**	**560,000**	**100**	**625,000**	**100**	**715,000**	**100**
1.Office of the Prime Minister	5,773.8	1.3	5,735.3	1.0	5,808.4	0.9	7,000.3	1.0
2.Ministry of Defense	**71,398.6**	**15.5**	**78,625.2**	**14.0**	**85,423.9**	**13.7**	**91,638.8**	**12.8**
3.Ministry of Finance	62,388.0	13.6	66,702.4	11.9	62,561.7	10.0	49,373.7	6.9
4.Ministry of Foreign Affairs	2,763.1	0.6	3,022.0	0.5	3,345.7	0.5	3,906.1	0.5
5.Ministry of Agriculture and Cooperatives	36,436.1	7.9	44,328.5	7.9	54,694.1	8.8	63,924.3	8.9
6.Ministry of Transportation & Communications	26,297.1	5.7	35,379.8	6.3	43,327.8	6.9	54,142.1	7.6
7.Ministry of Commerce	3,003.5	0.7	3,305.2	0.6	2,348.7	0.4	2,944.4	0.4
8.Ministry of Interior	63,499.4	13.8	85,895.3	15.3	93,287.3	14.9	106,874.5	14.9
9.Ministry of Labor and Welfare	0.0	0.0	0.0	0.0	6,673.8	1.1	8,323.7	1.2
10.Ministry of Justice	1,446.3	0.3	1,691.2	0.3	2,151.6	0.3	2,781.5	0.4
11.Ministry of Science, Technology and Environment	6,761.4	1.5	7,037.0	1.3	7,578.4	1.2	8,057.5	1.1
12.Ministry of Education	75,024.8	16.3	88,177.2	15.7	100,486.0	16.1	110,657.8	15.5
13.Ministry of Public Health	25,907.2	5.6	32,898.1	5.9	39,318.7	6.3	45,102.7	6.3
14.Ministry of Industry	2,457.9	0.5	3,395.2	0.6	3,712.8	0.6	4,056.6	0.6
15.Ministry of University Affairs	16,013.3	3.5	19,298.8	3.4	21,765.9	3.5	24,707.5	3.5
16.Others except Office of the Prime Minister	2,369.1	0.5	3,251.3	0.6	3,434.4	0.5	3,905.9	0.5
17.State Enterprises	10,582.7	2.3	17,606.8	3.1	17,990.6	2.9	18,313.8	2.6
18.Fund and Revolving Capital	7,281.8	1.6	8,361.4	1.5	9,909.3	1.6	11,899.0	1.7
19.Central Fund	40,995.9	8.9	55,089.2	9.8	61,181.0	9.8	97,389.8	13.6

Note: Amount: Millions Bahts, based on 1997

Ministry	1996		1997		1998		1999	
	Amount	%	Amount	%	Amount	%	Amount	%
Total	**843,200**	**100**	**944,000**	**100**	**830,000**	**100**	**825,000**	**100**
1.Office of the Prime Minister	8,111	0.96	8,188	0.87	6,684	0.81	7,126	0.90
2.Ministry of Defense	**100,611**	**11.93**	**104,093**	**11.03**	**82,612**	**9.95**	**77,445**	**9.40**
3.Ministry of Finance	49,031	5.81	50,040	5.30	42,862	5.16	74,866	9.10
4.Ministry of Foreign Affairs	4,157	0.49	4,232	0.45	3,833	0.46	4,106	0.50
5.Ministry of Agriculture and Cooperatives	74,609	8.85	81,825	8.67	65,526	7.89	64,877	7.90
6.Ministry of Transportation & Communications	68,251	8.09	80,880	8.57	73,580	8.87	59,017	7.20
7.Ministry of Commerce	4,059	0.48	4,059	0.43	3,812	0.46	4,047	0.50
8.Ministry of Interior	154,386	18.31	175,032	18.54	139,338	16.79	131,375	15.90
9.Ministry of Labor and Welfare	10,742	1.27	12,088	1.28	10,000	1.20	11,116	1.30
10.Ministry of Justice	4,331	0.51	4,590	0.49	5,409	0.65	5,038	0.60
11.Ministry of Science, Technology and Environment	10,773	1.28	13,143	1.39	11,490	1.38	11,441	1.40
12.Ministry of Education	136,725	16.22	141,972	15.04	153,341	18.47	151,579	18.40
13.Ministry of Public Health	56,126	6.66	66,544	7.05	62,625	7.55	56,621	6.90
14.Ministry of Industry	4,807	0.57	5,213	0.55	4,445	0.54	3,881	0.50
15.Ministry of University Affairs	31,788	3.77	36,762	3.89	33,410	4.03	35,062	4.20
16.Others except Office of the Prime Minister	4,705	0.56	4,925	0.52	4,686	0.56	4,460	0.50
17.State Enterprises	23,997	2.85	26,540	2.81	26,932	3.24	22,755	2.80
18.Fund and Revolving Capital	13,360	1.58	22,115	2.34	20,816	2.51	22,110	2.70
19.Central Fund	82,621	9.80	85,752	9.08	78,589	9.47	78,071	9.50

Note: Amount: Millions Bahts, based on 1997
Source: Ministry of Finance[24]

[24] Ministry of Finance, Fiscal budget 1996-1999, Available [online] <http://www.fpo.mof.gp.th/other2/quater1-41/TT8.htm> [27 Dec.1998].

APPENDIX B. THAILAND ARMED FORCES

1. ARMED FORCES		
Active	254,000 *Terms of service: conscription 2 years*	
Reserves	200,000	
2. ARMY		
Personal	150,000	
	80,000 conscripts	
Equipment		
Tank	MBT	50+
	M-48A5	150
	M60A1	53
Light Tank	Scorpion	154
	Stingray	106
RECCE	Shorland Mk3	32
APC	M-113	340
	V-150 Commando	150
	PRC type 85	450
Towed Arty	105 mm-M-101	200
	105 mm-M-102	12
	105 mm-M-618A2	32
	130 mm	15
	155 mm-M114	56
	155 mm-M198	62
	155 mm-M71	32
MOR	81 mm, 107 mm	
ATGW Tow	Dragon	300
AD GUNS	20 mm-M-163	24
	20 mm-M-167 24	
	37 mm-Type74	122
	40 mm-M-1	80
	57mm	24
SAM	Redeye, some Aspide	
Aircraft		
TPT	C-212	2
	Beech 99	1
	C-47	4
	Cessna 208	10
	Short 330	1
	Beech King Air	1
Liaison	O-1A	60
	T-41E	5
	U-17A	13
	T-41D	16

Helicopters		
Attack	AH-1F	4
TPT	CH-47	12
	Bell 206	10
	B-212	9
	B-214	6
	UH-1H	69
TRG	Hughes 300C	36
	OH-13	3
	TH-55	7

3. NAVY

Personal	64,000 included 1,300 Naval Air, 18,000 Marines, Coastal Defense and Coast Guards, and 22,000 conscripts
Structure	Fleets 3 fleets 1st East Thai Gulf, 2nd West Thai Gulf, 3rd Andaman Sea 1 Naval Air Division
Bases	Bangkok, Sattahip (Fleet HQ), Songkhla, Phang Nga, Nakhon Phanom (HQ Mekong River Operating Unit)
Carrier	1 Helicopter carrier
Frigates	12
7- FFG	
	1 *Naressuan* class: with 2*4 Harpoon SSM, 8 cell *Sea Sparrow* SAM, 1-127mm gun, 6-324mm TT, 1-SH-2F hel. 2 *Chao Phraya* (PRC *Jianghu III* type): with 8-C801 SSM, 2*2 –100mm guns, 2*5 ASW RL 2 *Kraburil* (PRC *Jianghu IV* type): with 8-C801 SSM, 1*2 –100mm guns, 2*5 ASW RL and Bell 212 hel. 2 *Phutthayotfa Chulalok* (U.S. *Knox*): with 8 Harpoon SSM, 8 ASROC ASTT, 1-127mm gun.
5-FF	
	1 *Makut Rajakumarn*: with 2*3 ASTT (sting Ray LWT), 2-114mm guns 2 *Tapi* (U.S. PF-103) with 2*3 ASTT, (Mk 46 LWT) 2 *Tachin* (U.S. Tacoma): with 2*3 ASTT

Patrol and Coastal Combatants	60 (5 Corvettes, 6- Missile Craft, 49- Patrol Craft.)
Mine Countermeasures	5
Amphibous	9
Support and Miscellaneous	11
Naval Air	
FTR	9- *Harrier* (6 AV-8, 3 TAV-8)
MR/ASW	2- P-3T *Orion*, 1-UP-3T, 6 Do-228, 5 F-27 MPA, 5-N24A *Seaechmaster*, 4 S-2F.
ASW HEL	7- Bell 212 ASW
MR/SAR	1 sqn with 2- CL-215, 6- S-70B

MR/ATTACK	11 –*Cossna* T-337 *Skymasters*, 14 A-7E, 4 TA-7C
SAR	1 Hel sqn with 7 Bell 212, 4 Bell 214, 4 UH-1H, 6 S-76N
ASM	AGM-84 *Harpoon* (for F-27 MPA)
Marines	1 div HQ, 2 inf regt, 1 arty regt, 1 amph aslt bn, 1 recce bn.
APC	33 LVTP-7
TOWED ARTY	18 155mm.
ATGW	Dragon TOW

4. AIR FORCE

Personal	40,000
FGA	3 (1 with 7 F-5A, 4 F-5B, 2 with 36 F-16)
FTR	2 sqn with 36 F-5E, 6 F-5F
COIN	7 sqn, 1 with 7 AC-47, 3 with 24 AU-23A, 2 with 30 OV-10C, 1 with 20 N-22B *Missionmaster*
ELINT	1 sqn with 3 IAI-201
RECCE	4 RF-5A, 3 RT-33A
SURVEY	2 Learjet 35A, 3 *Merlin* IVA, 3 GAF N-22B *Normads*
TPT	3 sqn 1 with 6 C-130H, 6 C-130H-30, 3 DC-8-62F 1 with 3 C-122-K, 4 Bae-748 1 with 6 G-222
VIP Royal flight	1 Airbus A-310-324, 1 Boeing 737-200, 1 *King Air* 200, 2 BAE-748, 3 *Merlin* IV, 2 Bell 412
TRG	24 CT-4, 30 *Fantrainer*-400, 16 *Fantranier*-600, 16 SF-260, 10 T-33A, 20 PC-9, 6-C, 11 T-41, 35 L-39ZA/MP.

Source: The Military Balance 1996/1997. The International Institute for Strategic Studies. (London: Oxford University, 1996).

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